1. A device for detecting the presence of an antigen, comprising:

a cell having antibodies which are expressed on the surface of the cell and are specific for the antigen to be detected, wherein binding of the antigen to the antibodies results in an increase in calcium concentration in the cytosol of the cell, the cell further having an emitter molecule which, in response to the increased calcium concentration, emits a photon;

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a liquid medium in which the cell is immersed, the liquid medium receiving the antigen to be detected; and

an optical detector arranged for receiving the photon emitted from the cell.

2. The device of claim 1, further comprising a covering for supporting the liquid medium.

3. The device of claim 1, wherein the optical detector is a charge-coupled device.

4. The device of claim 1, further comprising a housing.

5. A device for detecting the presence of an antigen, comprising:

a cell having antibodies which are expressed on the surface of the cell and are specific for the antigen to be detected, wherein binding of the antigen to the antibodies results in an increase in calcium concentration in the cytosol of the cell, the cell further having an emitter molecule which, in response to the increased calcium concentration, emits a photon;

a liquid medium in which the cell is immersed; and

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an optical detector arranged for receiving the photon emitted from the cells, wherein the optical detector is affixed to the liquid medium containing the cells.

6. The device of claim 5, further comprising a covering positioned over the optical detector to support the liquid medium.

7. The device of claim 5, wherein the optical detector is a charge-coupled device.

8. The device of claim 5, further comprising a housing.

9. A device for detecting the presence of two or more antigens, comprising:

an array containing a plurality of sectors, each sector containing a cell having antibodies which are expressed on the surface of the cell and are specific for the antigen to be detected, wherein binding of the antigen to the antibodies results in an increase in calcium concentration in the cytosol of the cell, the cell further having an emitter molecule which, in response to the increased calcium concentration in the cytosol, emits a photon;

liquid media in which the cell of each sector is immersed; and

an optical detector arranged for receiving the photon emitted from the cell;

wherein each sector contains a cell having antibodies specific to a different antigen.

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10. The device of claim 9, further comprising a covering for supporting the liquid medium.

11. The device of claim 9, wherein the optical detector is a charge-coupled device.

12. The device of claim 9, further comprising a housing.

13. A device for detecting the presence of two or more antigens, comprising:

an array containing a plurality of sectors, each sector containing a cell having antibodies which are expressed on the surface of the cell and are specific for the antigen to be detected, wherein binding of the antigen to the antibodies results in an increase in calcium concentration in the cytosol of the cell, the cell further having an emitter molecule which, in response to the increased calcium concentration in the cytosol, emits a photon;

a liquid medium in which the cell is immersed, the liquid medium receiving the antigen to be detected; and

an optical detector arranged for receiving the photon emitted from the cell;

wherein each sector contains a cell having antibodies specific to a different antigen.

14. The device of claim 13, further comprising a covering for supporting the liquid medium.

15. The device of claim 13, wherein the optical detector is a charge-coupled device.

16. The device of claim 13, further comprising a housing.

17. A device for detecting the presence of two or more antigens, comprising:

an array containing a plurality of sectors, each sector containing a cell having antibodies which are expressed on the surface of the cell and are specific for the antigen to be detected, wherein binding of the antigen to the antibodies results in an increase in calcium concentration in the cytosol of the cell, the cell further having an emitter molecule which, in response to the increased calcium concentration in the cytosol, emits a photon;

a liquid medium in which the cell is immersed; and

an optical detector arranged for receiving the photon emitted from the cell, wherein the optical detector is affixed to the liquid medium containing the cells;

wherein each sector contains a cell having antibodies specific to a different antigen.

18. The device of claim 17, further comprising a covering for supporting the liquid medium.

19. The device of claim 17, wherein the optical detector is a charge-coupled device.

20. The device of claim 17, further comprising a housing.

~~21~~ 9. A method for detecting the presence of an antigen, comprising:

providing a sample suspected of containing the antigen;

introducing the sample into a device containing a cell immersed in a medium, the cell having antibodies which are expressed on its surface and are specific for the antigen to be detected, wherein binding of the antigen to the antibodies results in an increase in calcium concentration in the cytosol of the cell, and the cell further having an emitter molecule which, in response to the increased calcium concentration, emits a photon; and

monitoring photon emission as an indication of whether the antigen is present.

~~22~~ 10. The method of claim ~~21~~ 9, wherein the sample is a volume of air.

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